Job No.: 1505-83863
Translated from French by the Ralph McElroy Translation Company
910 West Avenue, Austin, Texas 78701 USA

EUROPEAN PATENT OFFICE
PATENT APPLICATION NO. 1 068 852 A1

Int. Cl.[7]:	A 61 K 7/00 B 01 F 17/00
Filing No.:	00401575.6
Filing Date:	June 5, 2000
Publication Date:	January 17, 2001 Bulletin 2001/03
Priority	
Date:	July 12, 1999
Country:	FR
No.:	9909013
Designated States:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
Designated Extension States:	AL, LT, LV, MK, RO, SI

SOLID COMPOSITION AND ITS USES, NOTABLY COSMETIC

Inventors:
Isabelle Afriat
75003 Paris (FR)

Virginie Boulier
95520 Osny (FR)

Applicant:
L'OREAL
75008 Paris (FR)

Agent:
Catherine Rasson
L'OREAL-DPI
6 rue Bertrand Sincholle
92585 Clichy Cedex (FR)

The invention relates to a solid composition in the form of a water-in-oil emulsion, characterized in that the aqueous phase represents at least 70 wt% relative to the total weight of

the composition, in that it comprises at least one silicone emulsifier and at least 3 wt% of at least one wax relative to the total weight of the composition.

The silicone emulsifier is chosen from the dimethicone copolyols, the alkyl or alkoxy dimethicone copolyols, the solid crosslinked elastomer organopolysiloxanes comprising at least one oxyalkylenated group, and their mixtures.

The water preferably represents at least 65 wt% of the total weight of the composition.

The composition presents a great effect of freshness when applied to the skin and it is usable notably in the cosmetic and/or dermatological fields.

[0001]

The invention relates to a solid composition in the form of a water-in-oil (W/O) emulsion containing a large quantity of aqueous phase, at least one wax and a silicone emulsifier, and the uses of said composition, notably in the cosmetic and/or dermatological fields.

[0002]

In the cosmetic field, the freshness of the products applied to the skin is an important concern in the tropics or in summer when the need for refreshing textures is important.

[0003]

Conventionally, one obtains compositions that give an impression of freshness by using aqueous gels or oil-in-water emulsions whose external phase is aqueous. Indeed, when using aqueous gels or emulsions comprising an external aqueous phase, the immediate effect that is felt during the application to the skin is contributed by the water which immediately evaporates, thus giving an impression of freshness.

[0004]

Moreover, the active ingredients present in an emulsion present a better efficacy when they are in the dispersed phase of the emulsion. Thus, the emulsions with aqueous continuous phase (oil-in-water or O/W) allow a better efficacy of the lipophilic active ingredients, whereas the emulsions with oily continuous phase (water-in-oil or W/O) allow a better efficacy of the hydrophilic active ingredients. It is therefore advantageous to also have available W/O emulsions. However, the W/O emulsions present the drawback of being uncomfortable because of the greasy and heavy sensation contributed by the external fatty phase which persists on the skin. Thus, these emulsions do not provide freshness and they are generally too oil-rich to be used during the summer or in the tropics.

[0005]

To overcome these drawbacks, it has been considered to prepare W/O emulsions with high water content. However, the water content cannot be excessively high for reasons pertaining to stability, or a high water content must be compensated for by the addition of several surfactants or gelling agents, which can be detrimental to the comfort of the final composition and can even result in problems of cutaneous irritation, notably in subjects with sensitive skin.

[0006]

Therefore, there still is a need for a stable water-in-oil emulsion which comprises a large quantity of water, is usable in the cosmetic and/or dermatological fields, and which does not present the drawbacks of the prior art.

[0007]

Applicant now has found a solid composition of the water-in-oil emulsion type which allows these objectives, and which notably gives a great impression of freshness although it does have an oily continuous phase.

[0008]

The object of the present invention is a solid composition comprising, in a physiologically acceptable medium, an aqueous phase dispersed in an oily phase, characterized in that the aqueous phase represents at least 70 wt% relative to the total weight of the composition, and in that the composition comprises at least a silicone emulsifier and at least 3 wt% of at least one wax, relative to the total weight of the composition.

[0009]

One defines physiologically acceptable medium in the composition of the invention as a nontoxic medium which can be applied to the skin (including to the interior of the eyelids) or the lips of humans.

[0010]

Moreover, one defines "solid composition" as a composition presenting a resistance to compression which is greater than or equal to 50 g, at ambient temperature, after the penetration by a solid cylindrical probe having a diameter of 0.8 cm in the matrix of the composition to a depth of 5 mm at a speed of 1 mm/sec, maintenance of said probe in the matrix of the composition for 15 sec and retraction of said probe from the matrix of the composition at a speed

of 1 mm/sec; the resistance to compression being measured by a texture analyzer of the type TAXT2 marketed by the company RHEO.

[0011]

In spite of the large quantity of water, the composition of the invention is stable over time.

[0012]

The composition according to the invention comprises at least 70 wt% of aqueous phase relative to the total weight of the composition and preferably at least 75 wt% of the total weight of the composition. The aqueous phase can constitute up to 92 wt% of the total weight of the composition.

[0013]

The water constitutes at least 65 wt%, and preferably at least 70 wt%, of the total weight of the composition.

[0014]

Moreover, the aqueous phase of the emulsion can contain one or more lower alcohols such as ethanol in a quantity of preferably up to 15 wt%, and more advantageously up to 10 wt% of the total weight of the composition, and/or one or more polyols such as glycerin and propylene glycol in a quantity of up to 20%, for example, and more advantageously up to t% of the total weight of the composition.

[0015]

The composition of the invention contains as emulsifier a silicone emulsifier. The latter generally has an HLB (hydrophilic lipophilic balance) of less than 8 and can notably be chosen from the dimethicone copolyols, the alkyl or alkoxy dimethicone copolyols and the solid crosslinked elastomer organopolysiloxanes comprising at least one oxyalkylenated group.

[0016]

As dimethicone copolyol which is usable in the emulsion according to the invention one can cite, for example, the following mixtures marketed by the Dow Corning company:

- mixture of dimethicone copolyol, tetracyclomethicone (D4) and water (weight ratio 10/88/2), marketed under the name of DC 3225C;

- mixture of dimethicone copolyol, pentacyclomethicone (D5) and water (weight ratio 10/88/2), marketed under the name of DC 5225C;

- mixture of dimethicone copolyol and polydimethylsiloxane 5 cSt (weight ratio 10/90), marketed under the name of DC 3225C in 200 Fluid 5 cSt;

- mixture of dimethicone copolyol and polydimethylsiloxane 10 cSt (weight ratio 10/90), marketed under name of DC 3225C in 200 Fluid 10 cSt;

- mixture of dimethicone copolyol and pentacyclomethicone (D5) (weight ratio 43/57), marketed under the name of DC 5185C,

as well as the product sold under the name "SF-1228" by the GENERAL ELECTRIC company.

[0017]

As alkyl dimethicone copolyol, one can use, for example, lauryl dimethicone copolyol, such as the one sold under the name of Q2-5200 by the Dow Corning company, cetyl dimethicone copolyol, such as the one sold under the name of ABIL EM90 by the Goldschmidt company or the mixture polyglyceryl-4 isostearate/cetyl dimethicone copolyol/hexyl laurate sold under the name of Abil WE 09 by the Goldschmidt company, oleyl dimethicone copolyol, such as the one sold under the name of KF-6026 by the Shin-Etsu company, stearyl dimethicone copolyol such as the one sold under the name of X-22-904 by the Shin-Etsu company.

[0018]

In the expression "solid crosslinked elastomer organopolysiloxanes comprising at least one oxyalkylenated group," the term "elastomer" is defined as a flexible material which is deformable and has viscoelastic properties, notably the consistency of a sponge or of a flexible sphere. Its modulus of elasticity is such that this material is resistant to deformation and possesses a limited capacity of extension and contraction. This material is capable of resuming its original shape after having been drawn. This elastomer is formed of high molecular weight polymer chains whose mobility is limited by a uniform network of crosslinking points.

[0019]

The solid crosslinked elastomer organopolysiloxanes which can be used in the composition of the invention contain one or more oxyalkyenated groups and, in particular, oxyethylenated (OE) groups, for example, 1-40 oxyalkylenated units, and more advantageously, 1-20 oxyalkylenated units which can form polyoxyalkylene chains, and notably polyoxyethylene chains. These groups can be pendant groups, terminal groups, or they can be intended to connect

two parts of the silicone structure. The silicone atoms carrying these groups are present in the number of approximately 1-10.

[0020]

Although the invention concerns, more specifically, the solid crosslinked elastomer organopolysiloxanes with oxyethylenated group(s), it can also concern the oragnopolysiloxanes with oxypropylenated group(s). The organopolysiloxanes can also comprise, simultaneously, one or more oxyethylenated group(s), for example, 1-20 (OE), and one or more oxypropylenated group(s) (OP), for example, 0-20; these organopolysiloxanes are also called organopolysiloxanes with alkyl ethoxypropylenated group(s). Preferably, the number of oxyethylenated groups is greater than the number of oxypropylenated groups.

[0021]

The solid crosslinked elastomer organopolysiloxanes which can be used in the composition of the invention are partially or completely crosslinked and have a three-dimensional structure. Included in an oily phase, they are transformed, depending on the ratio of oily phase used, from a product with spongy appearance when used in the presence of small oily phase contents into a homogeneous gel in the presence of larger quantities of oily phase. The gelling of the oily phase by these elastomers can be total or partial.

[0022]

These organopolysiloxanes can be in the form of a powder, where the particles constituting this powder have a size of 0.1-500 pm, and more advantageously 3-200 μm, and they can be spherical, flat or amorphous, preferably with a spherical shape. They can also be in the form of a gel containing the elastomer organopolysiloxane dispersed in an oily phase. This oily phase, which is also called liquid fatty phase, can comprise any nonaqueous material or mixture of nonaqueous materials which is liquid at ambient temperature (25°C).

[0023]

These elastomer organopolysiloxanes can be chosen from the crosslinked polymers obtained by a reaction of addition and crosslinking in a nonaqueous medium in the presence of a catalyst of the platinum type of at least:

(a) a first organopolysiloxane (i) having two vinyl groups in the α-ω position of the silicone chain per molecule; and

(b) a second organopolysiloxane (ii) having at least one hydrogen atom bound to a silicone atom per molecule and at least one oxyalkylenated group.

[0024]

In particular, the organopolysiloxane (i) is chosen from the polydimethylsiloxanes (PDMS) and it is, more specifically, an α,ω-dimethylvinyl polydimethylsiloxane. The organopolysiloxane (ii) is notably chosen from the polydimethylsiloxanes comprising one or more hydrogen atoms each bound to a silicone atom, and one or more oxyethylenated groups, and optionally one or more oxypropylenated groups, bound to a silicone atom via an alkylene radical having 1-22 carbon atoms.

[0025]

Optionally, the silicone chains of the first and second organopolysiloxanes (i) and (ii) comprise pendant C_1-C_6 alkyl chains and/or aryl chains.

...dicated above, the elastomer organopolysiloxanes which can be used in the composition according to the invention are advantageously in an oily phase with which they form an anhydrous gel. This gel can notably be obtained as follows:

- (a) mixing of the first and second organopolysiloxanes (i) and (ii);
- (b) addition of an oily phase to the mixture of step (a);
- (c) polymerization of the first and second organopolysiloxanes (i) and (ii) in an oily phase in the presence of a platinum catalyst.

[0027]

The oily phase used during the fabrication of the anhydrous gel contains one or more oils which are liquid at ambient temperature (25°C) chosen from the hydrocarbon oils and/or the silicone oils. Advantageously, the oily phase is a liquid silicone phase containing one or more oils chosen from the PDMS with linear or cyclic chain which are liquid at ambient temperature, optionally comprising a pendant alkyl or aryl chain or an alkyl or aryl chain in terminal position, where the alkyl chain has 1-6 carbon atoms.

[0028]

The organopolysiloxanes of the invention are obtained, in particular, according to the protocols of Examples 3, 4 and 8 of the document US-A-5,412,004, and the examples of the document US-A-5,811,487.

[0029]

The elastomeric organopolysiloxanes which are usable in the composition of the invention are, for example, the one marketed under the reference KSG 21 by the Shin Etsu company or the product of Example 3 (synthesis example) of the patent US-A-5,412,004.

[0030]

KSG 21 is in the form of a gel and comprises 28 wt% of organopolysiloxane and 72 wt% of silicone oil (PDMS) having a viscosity of 6 cSt.

[0031]

The product of Example 3 (synthesis example) of the document US-A-5,412,004 is in the form of a pasty gel containing approximately 32-33 wt% of crosslinked organopolysiloxane with oxyethylenated group(s) and approximately 67-68 wt% of PDMS 6 cSt. The organopolysiloxane contains approximately 18 wt% of ethylene oxide relative to the total weight of the polymer. This elastomer gel has a plastic rheofluidizing behavior of 2×10^6 poise to 4×10^6 poise and a dynamic viscosity of 45 poise for a shear rate of 200 s^{-1}, measured with an imposed stress rheometer, RS 75 (Haake) at 25°C with a cone/plane geometry; characteristics of the cone: diameter 20 mm; angle 1° and gap 40 µm. This organopolysiloxane in addition has a viscoelastic behavior with elastic characteristic dominating at the low shear stress values, defined as follows: $800\ Pa < G^*_{plateau} < 2500\ Pa$ with $\delta_{plateau}$ of approximately 10°, $G^*_{plateau}$ representing the consistency and $\delta_{plateau}$ representing the elasticity. It presents a flash point of approximately 170°C at atmospheric pressure.

0032]

The silicone emulsifier is preferably present in the composition of the invention in a quantity of active substance of 0.1-10 wt%, more advantageously 0.3-5 wt%, and even more advantageously 0.4-2.5 wt%, relative to the total weight of the composition.

[0033]

The weight ratio of oily phase/silicone emulsifier is preferably equal to or greater than 5, and more advantageously equal to or greater than 8.

[0034]

The composition comprises at least one wax. The waxes which are usable in the composition of the invention can be chosen from the waxes of animal origin, such as the beeswaxes, spermaceti, lanolin wax and lanolin derivatives, the waxes of plant origin, such as

carnauba wax, candellila wax, ouricury wax, Japanese wax, cacao butter or the waxes of cork fiber or sugar cane; the mineral waxes, for example, paraffin, Vaseline, lignite waxes, or the microcrystalline waxes or the ozokerites; the synthetic waxes, which include the polyethylene and polytetrafluoroethylene waxes and the waxes obtained by the Fischer-Tropsch synthesis; the silicone waxes; the hydrogenated oils which are solid at 25°C, such as hydrogenated ricinus oil, hydrogenated jojoba oil, hydrogenated palm oil, hydrogenated tallow, hydrogenated cocoa oil, and the fatty esters which are solid at 25°C, such as C_{20}-C_{40} alkyl stearate sold under the commercial name of "KESTER WAX K82H" by the Koster Keunen company.

[0035]

As silicone waxes, one can cite, for example, the silicone polyether waxes, the alkyl or alkoxy dimethicones having 16-45 carbon atoms, such as poly(methylalkyldimethylsiloxane) marketed under the name of DC 2493 by the Dow Corning company (CTFA name: C_{30-45} alkyl methicone).

[0036]

According to a preferred embodiment of the invention, the composition contains as wax polyethylene wax, or more advantageously a mixture of polyethylene wax and hydrogenated jojoba oil.

[0037]

The composition of the invention contains a quantity of wax(es) of at least 3 wt%, and [illegible]-10 wt%, and more advantageously 5-8 wt% relative to the total weight of the [illegible]position.

[0038]

The oily phase of the composition according to the invention can contain, besides the wax and the oil which is optionally present in a mixture with the silicone emulsifier, any type of oils and fatty substances which are well known to a person skilled in the art, such as, for example, oils of plant origin (jojoba, avocado, sesame, sunflower, corn, soybean, safflower, grape seeds), the mineral oils (Vaseline, optionally hydrogenated isoparaffins), synthetic oils (purcellin oil, mixture of isopropyl myristate and of cetearyl octanoate; polyisobutylene; ethyl-hexyl palmitates; alkyl benzoates), the volatile or nonvolatile silicone oils, such as the polydimethylsiloxanes (PDMS) and the cyclodimethylsiloxanes or cyclomethicones, and the fluorinated or fluorosiliconated oils, as well as the mixtures of these oils.

[0039]

The oily phase can also contain other fatty constituents such as the fatty alcohols, for example, stearyl alcohol, cetyl alcohol and cetearyl alcohol, and the fatty acids.

[0040]

The oily phase is present in the composition according to the invention in a quantity of 7-25 wt%, and preferably 10-20 wt% relative to the total weight of the composition.

[0041]

Another advantage of the composition according to the invention originates from the fact that one can incorporate into it a large quantity of at least one electrolyte or a mixture of :ctrolytes without detrimental effect on the stability of the composition.

[0042]

As electrolyte, one can cite, for example, the salts of mono-, di- or trivalent metals, and more particularly, the salts of alkaline earth metals, such as the barium, calcium or strontium salts; the salts of alkali metals, such as the sodium and potassium salts, the magnesium, beryllium, yttrium, lanthanum, cerium, praseodyme, neodyme, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium, lithium, tin, zinc, manganese, cobalt, nickel, iron, copper, rubidium, aluminum, silica, selenium salts, and their mixtures.

[0043]

The constituent ions of these salts can be chosen, for example, from the carbonates, the bicarbonates, the sulfates, the glycerophosphates, the borates, the chlorides, the bromides, the nitrates, the acetates, the hydroxides, the persulfates, as well as the α-hydroxy acid salts (citrates, tartrates, lactates, malates) or the fruit acids, or the salts of amino acids (aspartate, arginate, glycocholate, fumarate).

[0044]

Preferably, the electrolyte is a mixture of these salts notably comprising calcium, magnesium, and sodium salts, and notably a mixture comprising at least magnesium chloride, potassium chloride, sodium chloride, calcium chloride, magnesium bromide, said mixture corresponding to the salts of the Dead Sea.

[0045]

The electrolyte(s) content, when the composition contains them, is generally 0.5-20 wt%, and preferably 2-10 wt% relative to the total weight of the composition.

[0046]

The composition according to the invention contains a physiologically acceptable medium and it can suitably constitute a cosmetic or dermatological composition. It is applied in a great number of treatments, notably cosmetic treatments for the skin, including the scalp, the hair, the nails and/or the mucosa, and in particular for the care, cleaning, makeup and/or sun protection of the skin and/or the mucosa, as well as for the preparation of a cream intended for the treatment of the skin, more particularly the oily skin (contribution of freshness).

[0047]

Moreover, the present invention also relates to the cosmetic use of the composition as defined above for the treatment, the protection, the care, the makeup removal and/or cleaning of the skin, the lips and/or hair and/or for the makeup of the skin and/or the lips.

[0048]

The present invention also relates to a method for the cosmetic treatment of the skin, including the scalp, the hair and/or the lips, characterized by the fact that one applies to the skin, the hair and/or the lips, a composition as defined above.

[0049]

The invention also relates to the use of the composition as defined above for the fabrication of a cream intended for the treatment of oily skin.

[0050]

In a known manner, the composition of the invention can also contain the usual adjuvants in the cosmetic and/or dermatological fields, such as the active ingredients, the preservatives, the antioxidants, the complexing agents, the solvents, the perfumes, the fillers, the bactericides, the odor absorbers, the dyes or the lipid vesicles. The quantities of these different adjuvants are those conventionally used in the field in question, for example, 0.01-20 wt% of the total weight of the composition. These adjuvants, depending on their type, can be introduced into the fatty phase, into the aqueous phase and/or into the lipid vesicles.

[0051]

As active substances one can notably cite, besides the above-indicated electrolytes, the hydrating agents and, for example, the protein hydrolysates, and the polyols such as glycerin, the glycols such as polyethylene glycols and the sugar derivatives; the natural extracts; the procyannidolic oligomers; the vitamins; urea; the depigmentation agents such as kojic acid and caffeic acid; the beta-hydroxy acids such as salicylic acid and its derivatives; the alpha-hydroxy acids such as lactic acid and glycolic acid; the retinoids, such as the keratinoids, the screens, and their mixtures.

[0052]

The active substance(s) can be present, for example, at a concentration of 0.01-20 wt%, preferably 0.1-5 wt%, and more advantageously 0.5-3 wt%, of the total weight of the composition.

[0053]

The composition according to the invention can be prepared, for example, by introducing the aqueous phase into the oily phase and by pouring the heated mixture, or by cooling the mixture while maintaining a very slow mixing until the temperature returns to ambient temperature (20-25°C). The composition has a solid or a "grained" appearance, that is it has an original granular appearance which diversifies the range of textures having an effect of freshness.

[0054]

The examples of compositions according to the invention given below are given for illustration and without limiting character. The quantities given therein are in wt% unless specified otherwise.

Example 1: Refreshing solid cream

[0055]

Phase A:

- Purcellin oil (cetearyl octanoate/isopropyl myristate)	2.44%
- Hydrogenated jojoba oil	5.5%
- Polyethylene wax	0.8%
- Example 3 of US-5,412,004 with 32 wt% of active substance (or 1.54 wt% of active substance)	4.82%

Phase B:

- Hexacyclomethicone	4.44%
- Purcellin oil (cetearyl octanoate/isopropyl myristate)	2%

Phase C:

- Glycerin	2%
- Sodium chloride	0.5%
- Water	qsp 100%

[0056]

Protocol: one places phase C in a water bath at 90°C. Then, one melts phase A at approximately 80-85°C on a heating plate while stirring with a spatula, and then one places it into the water bath. One rapidly adds phase B to phase A, which is maintained in the water bath, and one pours phase C into the mixture obtained with stirring. One pours the emulsion obtained into cupels, and then one cools to ambient temperature, preferably while covering the cupel.

[0057]

One obtains a solid pouring cream which forms beads when setting, that is the water forms beads on the product when one takes with a finger from the cupel.

Example 2: Pouring cream

[0058]

- Purcellin oil (cetearyl octanoate/isopropyl myristate)	2.64%
- Hydrogenated jojoba oil	5.5%
- Polyethylene wax	0.8%
- Abil WE09	1.92%

Phase B:

- Hexacyclomethicone	4.59%
- Purcellin oil (cetearyl octanoate/isopropyl myristate)	2%

Phase C:

- Glycerin	2%
- Sodium chloride	0.5%
- Water	qsp 100%

[0059]

Protocol: identical to that of Example 1.

[0060]

One obtains a pouring cream which is very fresh upon application.

Claims

1. Solid composition comprising, in a physiologically acceptable medium, an aqueous phase dispersed in an oily phase, characterized in that the aqueous phase represents at least 70 wt% relative to the total weight of the composition, and in that the composition comprises at least one silicone emulsifier and at least 3 wt% of at least one wax relative to the total weight of the composition.

2. Composition according to Claim 1, characterized in that it comprises at least 65 wt% water relative to the total weight of the composition.

3. Composition according to Claim 1 or 2, characterized in that the silicone emulsifier is chosen from the dimethicone copolyols, the alkyl- or alkoxy dimethicone copolyols, the solid crosslinked elastomeric organopolysiloxanes comprising at least one oxyalkylenated group, and their mixtures.

4. Composition according to the preceding claim, characterized in that the alkyl dimethicone copolyol is chosen from lauryl dimethicone copolyol, cetyl dimethicone copolyol, oleyl dimethicone copolyol, and stearyl dimethicone copolyol.

5. Composition according to Claim 3, characterized in that the solid crosslinked elastomeric organopolysiloxane comprises at least one oxyethylene group.

6. Composition according to Claim 3, characterized in that the solid crosslinked elastomeric organopolysiloxane is obtained by an addition and crosslinking reaction in a nonaqueous medium in the presence of a catalyst of at least:

- a first organopolysiloxane (i) having two vinyl groups in the α-ω position of the silicone chain per molecule; and

- a second organopolysiloxane (ii) having at least one hydrogen atom bound to a silicone atom per molecule and at least one oxyalkylenated group.

7. Composition according to the preceding claim, characterized in that the first organopolysiloxane (i) is chosen from the polydimethylsiloxanes.

8. Composition according to Claim 6 or 7, characterized in that the first organopolysiloxane (i) is an α-ω-dimethylvinyl polydimethylsiloxane.

9. Composition according to one of Claims 6-8, characterized in that the second organopolysiloxane (ii) is chosen from the polydimethylsiloxane having one or more hydrogen atoms and one or more oxyalkylenated groups bound to a silicone atom via an alkylene radical having 1-22 carbon atoms.

10. Composition according to any one of Claims 6-9, characterized in that the organopolysiloxane is in the form of a gel obtained according to the following steps:

- (a) mixing of the first and second organopolysiloxanes (i) and (ii);
- (b) addition of an oily phase to the mixture of step (a);
- (c) polymerization of the first and second organopolysiloxanes (i) and (ii) in an oily phase in the presence of a platinum catalyst.

11. Composition according to one of the preceding claims, characterized in that the silicone emulsifier represents 0.1-10 wt% of active substance relative to the total weight of the composition.

12. Composition according to any one of the preceding claims, characterized by the fact that the wax is chosen from the waxes of animal origin, the waxes of plant origin, the mineral waxes, the synthetic waxes, the silicone waxes, the hydrogenated oils which are solid at 25°C and the fatty esters which are solid at 25°C.

13. Composition according to any one of the preceding claims, characterized by the fact that the quantity of wax(es) is 3-10 wt% relative to the total weight of the composition.

14. Composition according to any one of the preceding claims, characterized by the fact that the oily phase is present in a quantity of 7-25 wt% relative to the total weight of the composition.

15. Composition according to any one of the preceding claims, characterized by the fact weight ratio of oily phase/silicone emulsifier is equal to or larger than 5.

16. Composition according to any one of the preceding claims, characterized by the fact that it contains at least one electrolyte.

17. Composition according to the preceding claim, characterized by the fact that the electrolyte is present in a quantity of 0.5-20 wt% of the total weight of the composition.

18. Composition according to any one of the preceding claims, characterized by the fact that it contains at least one active substance chosen from the hydrating agents, the natural extracts, the procyannidolic oligomers, the vitamins, urea, the depigmentation agents, the beta-hydroxy acids, the alpha-hydroxy acids, the retinoids, the screens, and their mixtures.

19. Composition according to any one of the preceding claims, characterized in that it constitutes a cosmetic composition.

20. Cosmetic use of the composition according to any one of Claims 1-19 for the treatment, the protection, the care, the makeup removal and/or the cleaning of the skin, the lips and/or the hair, and/or for the makeup of the skin and/or lips.

21. Method for the cosmetic treatment of the skin, including the scalp, the hair and/or the lips, characterized by the fact that one applies a composition according to any one of Claims 1-19 to the skin, the hair and/or the lips.

22. Use of the composition according to any one of Claims 1-19 for the fabrication of a cream intended for the treatment of oily skin.

European
Patent Office
EUROPEAN SEARCH REPORT

Application Number
EP 00 40 1575

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int Cl[7])
P,X	EP 0 970 682 A (L'OREAL) January 12, 2000 (01-12-2000) * Claims 1-13 * ---	1-5	A61K7/00 B01F17/00
P,X	WO 99 47111 A (L'OREAL) September 23, 1999 (09-23-1999) * Claims 1-46 * ---	1-5	
P,X	EP 0 965 331 A (BEIERSDORF AG) December 22, 1999 (12-22-1999) * Claims 1-5 * ---	1-5	
A	EP 0 670 157 A (L'OREAL) September 6, 1995 (09-06-1995) * Claims 1-26 * ---		TECHNICAL FIELDS SEARCHED (Int. Cl.[7]) A61K B01F
A	WO 95 15812 A (STEPAN COMPANY) June 15, 1995 (06-15-1995) * Claims 1-17 * ---		
A	EP 0 612 517 A (L'OREAL) August 31, 1994 (08-31-1994) * Claims 1-11 * ---		
A	WO 93 14742 A (L'OREAL) August 5, 1993 (08-05-1993) * Claims 1-18 * -----		

The present search report has been drawn up for all claims.

Place of search	Date of completion of the search	Examiner
THE HAGUE	October 27, 2000	Fouquier, J-P

CATEGORY OF CITED DOCUMENTS

X: Particularly relevant if taken alone.
Y: Particularly relevant if combined with another document of the same category.
A: Technological background.
O: Non-written disclosure.
P: Intermediate document.

T: Theory or principle underlying the invention.
E: Earlier patent document, but published on, or after the filing date.
D: Document cited in the application.
L: Document cited for other reasons.

&: Member of the same patent family, corresponding document.

APPENDIX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 00 40 1575

In this appendix, the patent family members of patent documents listed in the above-referenced European Search Report are indicated.

The data on the family members correspond to the state of the files of the European Patent Office on October 27, 2000

These data serve only for information and are given without guarantee

Patent document listed in the search report		Date of publication	Member(s) of the patent family			Date of publication
EP 970682	A	January 12, 2000	FR	2780662	A	January 7, 2000
			JP	2000044430	A	February 15, 2000
WO 9947111	A	September 23, 1999	FR	2776183	A	September 24, 1999
			AU	2841899	A	October 11, 1999
			BR	9906324	A	July 4, 2000
			EP	1011626	A	June 28, 2000
EP 965331	A	December 22, 1999	DE	19826750	A	December 23, 1999
			JP	2000026233	A	January 25, 2000
EP 670157	A	September 6, 1995	FR	2715844	A	August 11, 1995
			CA	2141765	A	August 5, 1995
			DE	69500778	D	November 6, 1997
			DE	69500778	T	February 5, 1998
			ES	2109779	T	January 16, 1998
			JP	2898213	B	May 31, 1999
			JP	7256086	A	October 9, 1995
			US	5552446	A	September 3, 1996
			US	5629004	A	May 13, 1997
WO 9515812	A	June 15, 1995	DE	69414596	D	December 17, 1998
			DE	69414596	T	April 15, 1999
			EP	0732969	A	September 25, 1996
			US	5746945	A	May 5, 1998
EP 612517	A	August 31, 1994	FR	2701845	A	September 2, 1994
			AT	152611	T	May 15, 1997
			CA	2115884	A	August 24, 1994
			DE	69403010	D	June 12, 1997
			DE	69403010	T	November 6, 1997
			DK	612517	T	December 1, 1997
			ES	2102157	T	July 16, 1997
			GR	3024287	T	October 31, 1997
			JP	2739033	B	April 8, 1998
			JP	6256135	A	September 13, 1994
			US	5523091	A	June 4, 1996
WO 9314742	A	August 5, 1993	FR	2686510	A	July 30, 1993
			AT	136772	T	May 15, 1996
			CA	2106479	A	July 28, 1993
			DE	69302231	D	May 23, 1996
			DE	69302231	T	November 7, 1996
			EP	0577817	A	January 12, 1994
			ES	2086931	T	July 1, 1996
			GR	3020195	T	September 30, 1996

APPENDIX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 00 40 1575

In this appendix, the patent family members of patent documents listed in the above-referenced European Search Report are indicated.

The data on the family members correspond to the state of the files of the European Patent Office on October 27, 2000

These data serve only for information and are given without guarantee

Patent document listed in the search report	Date of publication	Member(s) of the patent family	Date of publication
WO 9314742 A		JP 6506487 T US 5942213 A	July 21, 1994 August 24, 1999